CORE CONCEPT

Ballast Water and Biofouling Management Course: BWM Convention, Treatment Systems and Port Sampling

6 – 10 September 2027
Dubai - Five-star CBD venue

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Ref: 1962_29129 **Date:** 6 – 10 September 2027 **Location:** Dubai - Five-star CBD venue **Fees:** 19500 SAR

Introduction:

Ballast water and biofouling management, from BWM Convention standards to treatment systems and port sampling, is a 1-week course for ship operation, technical superintendence, port inspection and port environmental staff that ends with a Ballast Water and Biofouling Compliance Plan. Organisations face detained ships, failed treatment systems and invasive species introductions when exchange records, treatment performance and hull condition are managed apart. Nominees already handle ship technical records, port inspections or environmental permits, and the course uses case study work on real plans, logs and sample results. CoreConcept Training Center delivers this ballast water and biofouling management course.

Course Objectives:

- Apply the BWM Convention exchange standard D-1 and performance standard D-2 to decide which vessels, voyages and tanks each standard governs
- Select a ballast water treatment system by technology, vessel ballast profile, water salinity and turbidity, and plan its commissioning test
- Maintain a Ballast Water Management Plan and Ballast Water Record Book that withstand port State inspection and survey
- Plan and interpret ballast water sampling using indicative and detailed analysis under the IMO G2 guidelines
- Prepare a biofouling management plan and record book covering anti-fouling systems, niche areas, inspection and in-water cleaning with capture
- Assemble a Ballast Water and Biofouling Compliance Plan with contingency measures and monitoring indicators for a case fleet or port

Target Audience:

- Ship operation and fleet management staff responsible for voyage planning, ballast operations and crew instructions
- Technical superintendence staff responsible for treatment system retrofit, maintenance and class survey readiness
- Port State inspection staff responsible for checking ballast certificates, record books and sampling evidence
- Port environmental management staff responsible for discharge controls, invasive species risk and hull cleaning permissions
- Marine environmental officers responsible for monitoring aquatic invasive species and coordinating with shipping lines

Course Outline:

Day 1: Invasive Aquatic Species Pathways and Fleet Ballast Baseline

- Invasive Aquatic Species Transfer Through Ballast Tanks and Sediments
- Hull Fouling Pathway and Niche Area Colonisation Risk
- BWM Convention Scope, Vessel Applicability and Exemption Grounds
- Fleet Ballast Profile Worksheet by Trade Route and Tank
- Ballast Water Compliance Gap Assessment for Current Fleet

Day 2: BWM Convention Standards, Certification and Treatment Technologies

- Regulation D-1 Sequential and Flow-Through Exchange Methods
- Regulation D-2 Viable Organism Limits and Indicator Microbes
- International Ballast Water Management Certificate Survey Sequence
- Filtration and Ultraviolet Treatment Trains With Hold Times
- Electrochlorination, Ozone and Active Substance Neutralisation Controls

Day 3: Ballast Water Management Plan, Record Book and Commissioning

- IMO G4 Ballast Water Management Plan Structure and Sampling Points
- Ballast Water Record Book Entries for Uptake, Treatment and Discharge
- BWMS Code Type Approval Evidence and Operating Limits
- Treatment System Commissioning Test Sampling and Acceptance Records
- Sediment Removal, Tank Cleaning and Sediment Reception Logging

Day 4: Port Sampling, Compliance Monitoring and Biofouling Control

- IMO G2 Sampling Guidelines for Port State Inspection
- Indicative Versus Detailed Analysis Results Interpretation and Escalation
- Treatment System Failure Contingency Measures and Port Notification
- IMO Biofouling Guidelines Management Plan and Record Book
- In-Water Hull Cleaning With Debris Capture and Discharge Control

Day 5: Case Study Practice and the Ballast Water and Biofouling Compliance Plan

- Case Fleet Record Book Audit Against Port Inspection Findings
- Case Port Sampling Result Review and Enforcement Decision
- Case Vessel Hull Inspection Report and Cleaning Decision
- Compliance Monitoring Indicators for Fleet and Port Managers
- Ballast Water and Biofouling Compliance Plan Completion and Peer Review

Skills You Will Gain:

- Ballast Exchange Planning
- Treatment System Selection
- Commissioning Test Review
- Ballast Record Book Auditing
- Ballast Water Sample Interpretation
- Biofouling Risk Assessment
- Hull Cleaning Capture Control
- Invasive Species Risk Screening

Why Attend This Course:

- Deliver a Ballast Water and Biofouling Compliance Plan for a case fleet or port to the technical director and the port environmental lead
- Decide whether a vessel should exchange, treat, retain or discharge ballast to reception facilities on a given voyage
- Reduce detention, treatment system downtime and hull cleaning refusals by keeping plans, logs and commissioning evidence inspection-ready
- Equip crews and inspection colleagues with record book checklists, sampling decision sheets and biofouling inspection templates

Conclusion:

Back at work, the participant presents the Ballast Water and Biofouling Compliance Plan to the technical director, the fleet operations manager or the port environmental lead. They use it to decide treatment system upgrades, crew instructions on ballast operations, sampling priorities at the port and the conditions under which in-water hull cleaning is allowed. After the first port inspection or commissioning test under the plan, the unit should compare record book findings, sample results and hull condition against the plan indicators and revise contingency measures where gaps appear.

Frequently Asked Questions FAQ:

What should participants know before a ballast water and biofouling management course?

Participants should already work with ship technical records, port inspections or environmental permits and understand basic ship ballast operations. Bringing anonymised record book pages, sampling reports or hull inspection photos from their own fleet or port helps the case study work reflect real conditions.

How does a ballast water and biofouling management course differ from a marine pollution response course?

It focuses on preventing the transfer of invasive aquatic species through ballast tanks and hull fouling, rather than responding to oil releases. Pollution response courses cover spills, containment and shoreline clean-up, while this course covers treatment systems, record keeping, sampling and hull cleaning control.

Why does ballast water management need both exchange and treatment standards?

Exchange under Regulation D-1 replaces coastal water with open-ocean water but leaves surviving organisms, while Regulation D-2 sets organism limits that need an approved treatment system. Understanding both helps operators plan transitions, contingencies and voyages where treatment is unavailable.

What do participants take back from the ballast water and biofouling management course?

Participants take back a Ballast Water and Biofouling Compliance Plan for a case fleet or port, with a fleet ballast profile, record book audit checklist, sampling decision sheet, hull inspection template and compliance monitoring indicators.